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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/996,618 | 11/27/2001 | William H. Shepard | 05918-130002 | 6078 |
| 26161 | 7590 | 10/28/2003 | EXAMINER | |
| FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110 | | | JUSKA, CHERYL ANN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1771 | |

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/996,618 | SHEPARD ET AL. | |
| | Examiner | Art Unit | |
| | Cheryl Juska | 1771 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 34-89 is/are pending in the application.
- 4a) Of the above claim(s) 66-89 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-18 is/are rejected.
- 7) ☒ Claim(s) 9 and 34-65 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restriction

1. Claims 66-89 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected inventions. Election of claims 1-18 and 34-65 was made without traverse in the response filed July 23, 2003.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 34, 38, 41, 43, 46-49, 52-56, 61, and 62 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 24, 25, 27-29, 31-36, and 38-40 of U.S. Patent No. 6,342,285. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims only differ in the language chosen to describe the knotted loops (i.e., knots vs. tightened entanglements and loop clusters vs. free-standing and spaced-apart loop structures).

Allowable Subject Matter

4. Claims 34-65 contain allowable subject matter. The prior art does not teach or fairly suggest a looped nonwoven material having the presently claimed looped structure and being stabilized in a condition of at least 20% areal stretch.
5. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not teach a looped nonwoven having the claimed loop, knot, and truck structures, wherein at least some of the fibers of the trunks have a thickness that undulates along the length.

Claim Rejections - 35 USC § 102/103

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1, 3, 5, 7, 10, 11, 13, and 16-18 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US Patent 5,891,547 issued to Lawless.

Lawless discloses a needle-punched nonwoven component for refastenable fastening device. In particular, Lawless teaches a nonwoven loop fabric having a basis weight ranging from 1.5 to 4.0 oz/yd² and a thickness ranging from 0.015 to 0.050 in. (abstract). Lawless needles a batt of staple fibers to form said nonwoven (col. 3, lines 47-col. 4, lines 19). The fibers may be polyester, cotton, rayon, acetate, polypropylene, polyethylene, nylon, or combinations thereof (col. 4, lines 58-62). Additionally, Lawless teaches said nonwoven may be finished with a binder to increase its dimensional stability (col. 5, lines 20-22). Suitable binders include acrylics, urethanes, and polyvinyls (col. 5, lines 33-38). Furthermore, Lawless teaches that the nonwoven may be further processed after needling in order to fuse said nonwoven (col. 4, lines 1-3). Lawless also teaches the tentering of the looped nonwoven during the drying of the binder (col. 7, lines 26-43). Said nonwoven is stretched 10% on the tenter frame. The looped nonwoven may be laminated to a backing substrate such as a fabric, film, or foam (col. 5, lines 46-64).

Although Lawless does not explicitly teach the claimed knot, trunk, and loop structures, it is reasonable to presume that the Lawless invention inherently possesses these structures. Said presumption is supported by the use of like materials (i.e., needled nonwoven with binder) and processes (i.e., needling, stretching, and binding) to produce the a low weight looped nonwoven. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 495. In the alternative, the claimed structural features would obviously have been provided by the process

disclosed by Lawless. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102. Therefore, claims 1, 3, 5, 7, 10, 11, and 13 are rejected.

Similarly, with regard to claims 16-18, Lawless does not explicitly teach knotting density, fiber tenacity, or stiffness of the inventive nonwoven. However, it is reasonable to presume that the Lawless nonwoven inherently possesses these properties within the ranges claimed by the Applicant. Support for said presumption is found in the fact that the starting materials, process of making, and specific end-use of the Lawless patent are equivalent to the applicant's. The burden is upon the applicant to prove otherwise. Therefore, claims 16-18 are rejected.

Claim Rejections - 35 USC § 103

9. Claims 2, 4, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Lawless patent.

Although Lawless does not explicitly teach crimped fibers are employed for the nonwoven material, it is well known in the art that synthetic fibers, such as those employed by Lawless, are conventionally texturized or crimped. Applicant is hereby given Official Notice of this fact. Thus, it would have been obvious to one skilled in the art to employ crimped fibers for the synthetic nonwoven fibers of Lawless. Motivation to do so would be the availability of said fibers, the softer hand and better texture of a fabric produced by crimped fibers compared to non-crimped fibers. Therefore, claims 2, 4, and 8 are rejected.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Lawless patent.

Lawless is silent with respect to the percent total weight of binder present in the looped nonwoven fabric. However, it would have been obvious to one skilled in the art to employ binder in the amount presently claimed. Increasing the amount of binder would produce a more stable, yet stiffer fabric, while decreasing the amount of binder would produce an easily distorted, stretched, or torn, yet softer, more drapable fabric. It has been held that discovering an optimum value or a result effective variable involves only routine skill in the art. *In re Boesch*, 205 USPQ 215. Therefore, claim 6 is rejected as being obvious over the prior art.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Lawless patent.

Although Lawless teaches backing substrates for the looped nonwoven, the reference is silent with respect to the backing material comprising hook projections for engaging with the loops. However, it is well known in the art to form hook surfaces on the backside of a looped material in order to produce a hook and loop fastener of a unitary substrate. For example, Kennedy teaches a hook and loop fastener strip wherein hooks made of a plastic resin are formed on one side, while a looped surface is formed on the opposite side of said strip (abstract, Figures 5, 7, and 8).

12. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Lawless patent.

Although Lawless does not explicitly teach an average loop height, it would have been obvious to one skilled in the art to manipulate the process variable or starting materials in order

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to produce a nonwoven which possesses the claimed average loop height. Motivation to do so would be the desire to produce a looped fabric which would be able to fully engage with a hook component of a specified hook height. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Therefore, claims 14 and 15 are rejected as being obvious over the prior art.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



CHERYL A. JUSKA
PRIMARY EXAMINER